

# VERMONT YANKEE

Entergy Nuclear Northeast

**MASSACHUSETTS**



## **EMERGENCY PUBLIC INFORMATION 2006 CALENDAR**

**IMPORTANT INFORMATION  
PLEASE SAVE FOR REFERENCE**

**PLEASE UNFOLD FLAT AT  
START OF INFORMATION SECTION**

## A message to neighbors of the Vermont Yankee Nuclear Power Station

The Commonwealth of Massachusetts has a policy on emergency planning:

First, each and every human life is of equal and inestimable value:

Second, during an emergency, the Commonwealth of Massachusetts will make every effort and exhaust every resource, public and private, to save lives, reduce injury and suffering and protect people from exposure to harm;

Third, during an emergency, protective judgements will be made on the basis of human need. There is no such thing as an acceptable level of death, injury or suffering.

### Emergency Information

This important information is provided to you as a public service by the Massachusetts Emergency Management Agency, the Massachusetts Department of Public Health and Vermont Yankee.

It tells you what to do in the event of an emergency at the Vermont Yankee Nuclear Power Station.

Some of this information would also be useful in other emergencies requiring public notification and possible public response. Such emergencies may include train derailments, chemical spills, floods, hurricanes, earthquakes, and tornadoes.

**Please read this calendar and keep it in a safe and accessible place.**

## About Vermont Yankee

The Vermont Yankee Nuclear Power Station in Vernon, VT is a single-unit "boiling water reactor." At Vermont Yankee, water is heated to produce steam that flows to a turbine. The turbine rotates and spins an electric generator producing electricity—just as in a coal or oil-powered power plant.

The steam then goes into a heat exchanger called a condenser, and becomes water when cooler water from the Connecticut River flows through tubes containing the steam in the condenser. The condenser is designed to keep steam from the turbine separate from the water that is drawn from and returned to the river. This process is similar to any power plant that uses steam. Once the steam in the condenser becomes water, it is pumped back into the reactor to be boiled again. The plant produces 540 megawatts of electricity daily, enough electricity to light 540,000 homes, operating safely and reliably since 1972. Vermont Yankee, like all nuclear power plants, does not produce greenhouse gases or other air pollutants.

### Vermont Yankee Safety Systems

Vermont Yankee, like all American nuclear power plants, has numerous safety features designed to protect the plant, the environment and the health and safety of the people around the plant if a problem occurs.

These safety systems include:

- Several separate sources of cooling water to prevent the fuel from overheating in normal and emergency conditions.
- Backup systems and components for key plant functions.
- A leak-tight steel-lined, steel-reinforced concrete containment building.
- Backup electric power supplies to operate all key components.



## Emergency Classifications

If an emergency is declared at the Vermont Yankee Nuclear Power Station, it would be categorized into one of four emergency levels.

■ **Unusual Event:** This means a minor problem has occurred at the plant. It may involve injury to a worker, hazardous weather or an equipment problem. Public officials would be notified, but there would be no need to notify the public. People in the area would not need to take any special actions.

■ **Alert:** This could affect plant safety but it is not expected to require any special actions by residents. Public officials would be notified. They would watch the situation and be ready to act if it got worse. As a precaution, public officials may mobilize transportation resources. They may transfer school children to host facilities outside the area and clear state forests and waterways. Emergency Alert System radio or news broadcasts would inform the public of these actions.

■ **Site Area Emergency:** This means a more serious problem affecting the plant and plant boundaries has occurred. Any release of radioactive materials from the plant would be below federal limits. State and local officials would keep persons in the area fully informed about any necessary actions through Emergency Alert System radio stations. As a precaution, public officials would transfer school children to host facilities outside the area if this had not already been done. Other precautions would be called for by state officials, as needed.

■ **General Emergency:** This is the most serious type of emergency. It could involve serious damage to the plant and the release of radioactive materials. State officials might direct persons in some areas to shelter-in-place or to evacuate to a safer location. Warning signals would notify persons in the area. Special instructions and other important information would be issued over the Emergency Alert System radio stations.

## Are you in the Emergency Planning Zone (EPZ)?

The area approximately 10 miles around the Vermont Yankee Nuclear Power Station is called the Emergency Planning Zone. Plans have been developed for warning and protecting people within this 10-mile area (refer to the map on page 8). Communities in the Emergency Planning Zone are:

**Bernardston:** Entire town

**Colrain:** The portion of Colrain east of Greenfield Road and Route 112 North. Both sides of these roads are included as well as all dead-end roads off them.

**Gill:** The northern portion of Gill bounded on the southerly edge by Bascom Road from Fall River to Hoeshop Road; to West Gill Road, then south to Franklin Road, east to Green Hill Road to South Cross Road, east to Main Road, north on Main Road to Hill Road to River Road, then south to Grist Mill Road to its end and then due east to the Connecticut River. Both sides of all EPZ boundary roads are included, as well as all dead-end roads off them.

**Greenfield:** From the northern border (Greenfield-Leyden boundary), south on Leyden Road to Barton Road, then east on Barton Road to West Log Plain Road, to Severance Street, to Bernardston Road (Routes 5 and 10), then north to East Log Plain Road, then east to Lampblack Road, south to Scout Road, east on Scout Road to its end, then due east to the Fall River (Greenfield-Gill boundary). Both sides of all EPZ boundary roads are included, as well as all dead-end roads off them.

**Leyden:** Entire town

(Continued next page.)

**Northfield:** The portion of Northfield from the state line south along the western town boundary to a line starting at the Connecticut River and moving due east to the intersection of Cross Road with Pine Meadow Road; east on Cross Road to Main Road (Route 63), north to South Mountain Branch Road, to South Mountain Road, then to its end at Gulf Road, then north on Gulf Road to Orange Road, then along Orange Road to the town line. Both sides of all EPZ boundary roads are included, as well as all dead-end roads off them.

**Warwick:** The northwestern portion of Warwick from the state line along the western town boundary to Northfield Road, then east to White Road, south and then east along White Road back to Northfield Road, east to Winchester Road (Route 78), north to Robbins Road, then east to Old Winchester Road, and north to the state line. Both sides of all EPZ boundary roads are included, as well as all dead-end roads off them.

## How You Will Be Notified of an Emergency

If there is an emergency requiring public notification, you will be alerted by one or more of the following warning signals:



Tone-Alert (Weather-Alert) radio sounding a tone followed by a message.



The loud, steady tone of the **outdoor** town emergency management sirens, lasting 3 to 5 minutes. (Bernardston, Colrain, and Northfield only.)



Broadcasts from loudspeakers on emergency vehicles. This is known as "Route Alerting."



Special announcements on local Emergency Alert System radio stations.

**If you hear any of these signals, tune to an Emergency Alert System radio station immediately.**

Check with your neighbors, especially the elderly or those who have difficulty hearing or seeing, to make sure they have received the warning signal and know what to do.

## Do You Need a Tone-Alert Radio? (Weather-Alert, All Hazards Radio)

If you live in the towns of Greenfield, Gill, Leyden, or Warwick you are in the Emergency Planning Zone and should have a Tone-Alert Radio. This is the primary means of notification in the event of an emergency at Vermont Yankee. If you live in Bernardston or Colrain and do not hear the monthly siren test (see page 11) then you should have a Tone-Alert Radio. If you live in the town of Northfield and are not within audible siren range you should have a Tone-Alert Radio. The sirens in Northfield are sounded annually, on the first Saturday in November. If you do not have one, or if yours is inoperable, you can obtain one from your town Emergency Management Director or by completing the request card included as part of this calendar. If you are in need of a new battery(s) for your radio, a listing of Emergency Alert System (EAS) radio stations, or instructions on radio use, please contact your Emergency Management Director (see page 10). If you are in need of any of the above information and find it more convenient, you may contact Vermont Yankee Toll Free at 1-888-766-3765.

It is very important to keep your radio plugged in at all times. You should check your radio's operability by battery as well in case of a power failure. Please leave your Tone-Alert Radio on the alert status at all times. Your radio may sound for any number of emergencies such as a weather emergency or natural disaster. We suggest that you place your radio near a window in your home. Radios typically have better reception if placed near an "open" area of your home or business.

Tone-Alert Radios are tested weekly on Wednesday morning between 10 and noon. If your radio does not go on automatically during these weekly tests it may be defective. Contact your local Emergency Management office at the number listed on page 10 to have it checked and replaced if necessary.

Special Tone-Alert Radios for the deaf or hard of hearing are available for distribution to residents living in the Emergency Planning Zone (EPZ) towns of Bernardston, Colrain, Gill, Greenfield, Leyden, Northfield, and Warwick. These special Tone-Alert Radios are available free of charge to hearing impaired residents from their local Emergency Management office (see page 10) or from Vermont Yankee by calling 1-888-766-3765.

## Emergency Alert System(EAS)

If you are alerted by a warning signal, you should tune to a local Emergency Alert System (EAS) station for emergency instructions. EAS is the direct link between you and the people responsible for your safety. Instructions will be given to you at any hour, day or night, and will include recommendations as to what you should do for your protection. Follow instructions carefully. Do not worry if you miss the beginning of an emergency broadcast as information will be provided regularly.

### EAS Stations

Massachusetts	<b>WHYN</b>	Springfield	560	AM*
	<b>WHYN</b>	Springfield	93.1	FM*
	<b>WHMQ</b>	Greenfield	1240	AM*
	<b>WHAI</b>	Greenfield	98.3	FM*
	<b>WPVQ</b>	Greenfield	95.3	FM*
	<b>WRSI</b>	Northampton	93.9	FM*
New Hampshire	<b>WKBK</b>	Keene	1290	AM*
	<b>WKNE</b>	Keene	103.7	FM*
	<b>WZBK</b>	Keene	1220	AM*
	<b>WOQL</b>	Keene	98.7	FM*
	<b>WYRY</b>	Keene	104.9	FM*
	<b>WTSA</b>	Brattleboro	1450	AM*
Vermont	<b>WTSA</b>	Brattleboro	96.7	FM*
	<b>WKVT</b>	Brattleboro	1490	AM*
	<b>WKVT</b>	Brattleboro	92.7	FM*
	<b>WVPR</b>	Brattleboro	94.5	FM*
	<b>WVPR</b>	Windsor	89.5	FM*
	<b>WRSY</b>	Marlboro	101.5	FM*
	<b>WVAY</b>	West Dover	100.7	FM*

\*On the air 24 hours a day.

In case of an emergency, always stay tuned to an Emergency Alert System radio station in the state you are in.

If you are visiting New Hampshire or Vermont and an accident occurs, listen to one of the radio stations listed for the state you are in.



## Plans for Children in School or Child Care

**Schools:** All schools within the Emergency Planning Zone (EPZ) have emergency plans. Early in an emergency, school children inside the EPZ will be moved to host facilities outside the EPZ. **We recommend you do not pick up your children at school or call the school.** Instead meet them at their host facilities. Designated host facilities are listed in the next column.

Children who live inside the EPZ but who go to a school outside the area will be kept at their school until their parents pick them up.

If an emergency existed before the start of the school day, school could be canceled, as it is when there is danger of a winter storm.

**Day Care Centers:** Day care centers within the EPZ have emergency plans. Early in an emergency, day care centers will be closed. Parents will be notified of this by telephone, if possible, and asked to pick up their children. Any children not picked up will be taken to a host facility outside the EPZ. Designated host facilities are listed in the next column.

In a sudden, serious emergency, children may be taken directly to a reception center for monitoring and, if necessary, decontamination. Then they would be taken to their predesignated host facility where you could pick them up.

**Parents should listen to a local Emergency Alert System radio station to confirm this information at the time of an emergency.**

## List of Host Facilities

### If your children attend:

### Pick them up at:

Colrain Central School  
Otter Pond Preschool  
Bernardston Elementary School  
Full Circle School  
Pearl Rhodes Elementary School  
Northfield Elementary School  
Pioneer Valley Regional School  
Warwick Elementary School

Greenfield  
Community College  
One College Drive  
Greenfield, MA 01301  
(413) 775-1000

Gill Elementary School

Turners Falls High School  
Turnpike Road  
Turners Falls, MA 01376  
(413) 863-9341

Linden Hill School  
Northfield-Mt. Hermon School  
Giving Tree Preschool

University of  
Massachusetts  
Amherst, MA 01003  
(413) 545-2121

## What to Do When Told to Shelter-In-Place

You may be instructed to shelter-in-place. This means you should immediately go inside the nearest available building. If you are already inside, stay there. Sheltering-in-place may provide the best protection. If a shelter-in-place message is given for your community over the Emergency Alert System radio station, you should do the following:

- Go indoors and close all doors and windows.
- Turn off all window fans, clothes dryers, kitchen and bath exhaust fans, air conditioners, and other sources of outside air.
- Continue to listen to an EAS radio station for official messages and instructions.
- Keep pets indoors.
- If you have livestock, shelter them too. Give them stored feed and water from a covered source.

Below ground basements provide the best shelter. Avoid areas near windows; above ground, interior rooms on lower floors provide the best protection.

Stay inside until officials say otherwise. If you must go outside, cover your nose and mouth with a folded, damp cloth. Persons with respiratory disorders should not go out at all.

If you are traveling in a motor vehicle in the affected area, close the windows and air vents. Keep the radio tuned to an EAS station. If you are a local resident, go home immediately and stay inside. If you are a visitor, leave the area immediately, or go inside a nearby building or a public shelter.

If sheltering-in-place is recommended during school hours, children will be sheltered in the school building and cared for by school personnel.

**DO NOT use the telephone unless you need special assistance.**

## When Told to Evacuate

If an evacuation is necessary, public safety officials will tell you over the Emergency Alert System radio station what to do. DO NOT evacuate unless directed to do so by public safety officials. When told to evacuate you should:

- Gather all persons in the house together.
- We recommend you DO NOT pick up children at their schools. They will be taken to a designated host facility outside the area where you may pick them up later.
- Household members outside the area may be advised not to return during an evacuation. They will be directed to the reception center where they can join you.
- **DO NOT** call your local fire or police departments for information. Emergency workers will need their telephone lines for emergency use. If you need special help call your local Emergency Management Office at the number listed on page 10.
- Stay tuned to an Emergency Alert System Radio station. (See page 4 for listing.)
- The Commissioner of Public Health may recommend that evacuating persons, who have elected to do so, ingest potassium iodide.
- EAS messages will tell people if the Massachusetts Department of Public Health (MDPH) has made this recommendation.

## What to Do as You Leave

- Turn off lights and unnecessary appliances.
- Close and lock windows and doors.
- Check with neighbors to see if they need assistance and offer to share transportation, if you can.
- If you need a ride, try to get one with neighbors.
- If you cannot get a ride and have not registered with your local Emergency Management Office for transportation assistance in an emergency, call the office at the number listed on page 10. Emergency workers will arrange transportation for you.
- If you have livestock, shelter them. Leave them a three-day supply of stored feed and water that has been protected from possible contamination.

## About Your Pets

Plan how to take your pets with you. Only seeing-eye and hearing-aid dogs and other service animals will be allowed inside the reception centers and mass care shelters.

### **DO NOT LEAVE YOUR PETS BEHIND. ARRANGE FOR THEIR EVACUATION IN ADVANCE.**

- If you must evacuate, the most important thing you can do to protect your pets is to evacuate them too. Prepare for the day when you and your pets may have to leave your home.
- Since most human shelters will not accept animals, compile a list of places you could take your pets to if you evacuate your home: boarding kennels or veterinary hospitals with boarding facilities outside your area, friends or relatives outside the affected area, motels that will accept you and your pets in case of emergency.
- Prepare an emergency kit for your pets with: copies of your pet's vaccination and medical records, a current photograph, collars and leashes, 3-day supply of water and food in moisture-proof containers, bowls, litter and litter box, first aid kit, and a week's supply of any medication your pet may be taking.
- Ensure your pet wears a collar with a current license tag, rabies tag and identification tag with your name, addresses and phone number of a relative who lives outside the area who can be contacted if you cannot be reached.
- Get a sturdy pet carrier for each of your pets. Favorite toys or blankets will provide comfort to your pet should you be temporarily separated.

For more information on disaster preparedness for pets, visit  
The Humane Society of the United States website at:  
[www.hsus.org/hsus\\_field/hsus\\_disaster\\_center/disaster\\_preparedness\\_for\\_pets/](http://www.hsus.org/hsus_field/hsus_disaster_center/disaster_preparedness_for_pets/)

## Here are Some Things You May Want To Take With You

Just take essential items you would need. You could be away from home for a few hours to a few days. These are suggestions that apply to any type of emergency evacuation.

- This calendar
- Clothing for several days
- Toilet articles (soap, toothbrush, toothpaste, shampoo, etc.)
- Prescription medicines, medical equipment and important medical records
- Special dietary foods
- Baby supplies
- Identification (drivers license) and important papers
- Checkbook, credit card, and cash
- Blankets, pillows, and towels (if you plan to stay at a public mass care shelter)

For additional information and checklists, visit the American Red Cross  
website at [www.redcross.org](http://www.redcross.org).

## How to Travel

- While traveling in your car, close all windows and vents and turn off heaters or air conditioners as you go to the reception center.
- Keep the car radio tuned to an Emergency Alert System station.
- Drive out of the area to the reception center along one of the routes shown on pages 8 and 9.



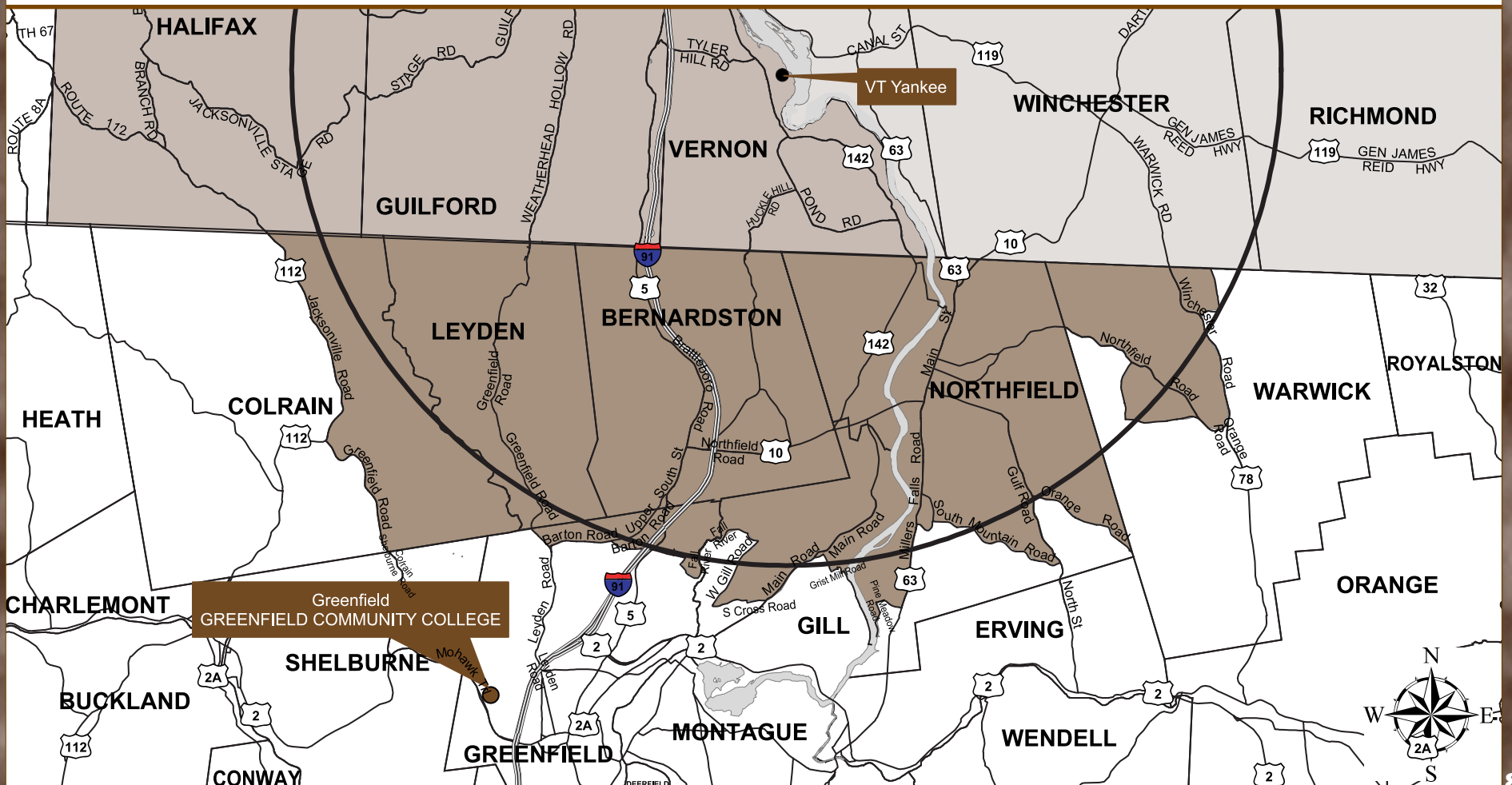
# Massachusetts Reception Center

Reception centers are available to assist evacuees. The reception center for your area is outside the 10-mile Emergency Planning Zone at the Greenfield Community College.

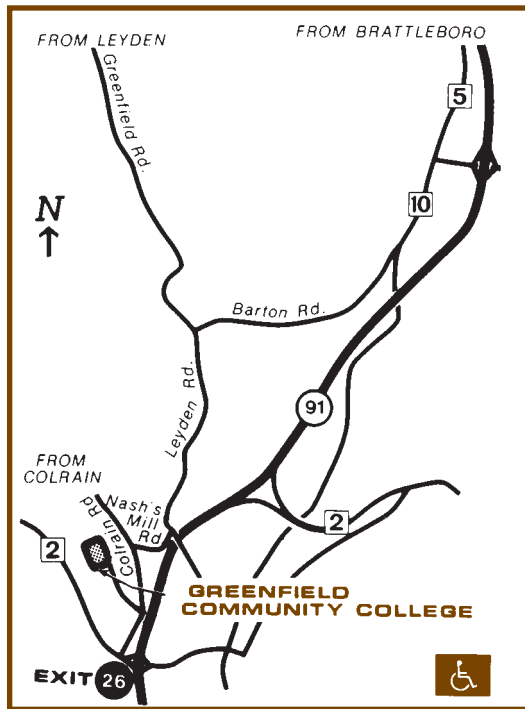
At the center, you will be registered and checked for contamination.

Emergency workers will decontaminate and care for anyone needing this type of assistance. You will be able to receive information about the location of other members of your family who have already registered at the reception center. If you need a place to stay, you

will be directed to a mass care shelter that will provide meals and lodging. The reception center and mass care shelters are handicap accessible. If you have additional needs, officials will assist you.



## Evacuation Routes



The wind direction and your location within your community may affect the evacuation route that officials recommend. Follow directions of police and other traffic officers. Stay tuned to your local Emergency Alert System radio station for special instructions for your area. Take your time; instructions will be given in plenty of time to allow you to evacuate safely.

**Bernardston:** Proceed via Route 5 or 10 to I-91 south. Take I-91 exit 26 to Route 2 west. Take first right (Colrain Road) to Greenfield Community College.

**Colrain:** Proceed to Route 2 via Greenfield Road or Route 112 south. Follow Route 2 east toward Greenfield. At traffic light, turn left onto Colrain Road to Greenfield Community College.

**Gill:** Follow local roads south to Route 2. Take Route 2 west to I-91 south. Take I-91 exit 26 to Route 2 west. Take first right (Colrain Road) to Greenfield Community College.

**Greenfield:** If west of I-91, proceed via Barton Road west to end at Leyden Road. Turn left and follow Leyden Road south to Nash's Mill Road. Turn right onto Nash's Mill Road and proceed to the end. Turn left onto Colrain Road and proceed south to Greenfield Community College. If east of I-91, proceed via Routes 5 and 10 south to Route 2. Follow Route 2 west to I-91 south. Take I-91 exit 26 to Route 2 west. Take first right (Colrain Road) to Greenfield Community College.

**Leyden:** Proceed via Greenfield Road south, which becomes Leyden Road in Greenfield. Follow Leyden Road to Nash's Mill Road, turn right and proceed on Nash's Mill Road to end at Colrain Road. Turn left onto Colrain Road, proceed south to Greenfield Community College.

**Northfield:** Proceed to I-91 south via Route 10 west or Route 63 south to Route 2 west. Take I-91 exit 26 to Route 2 west. Take first right (Colrain Road) to Greenfield Community College.

**Warwick:** Follow Route 78 south to Route 2A, west to Route 2 to I-91 south.

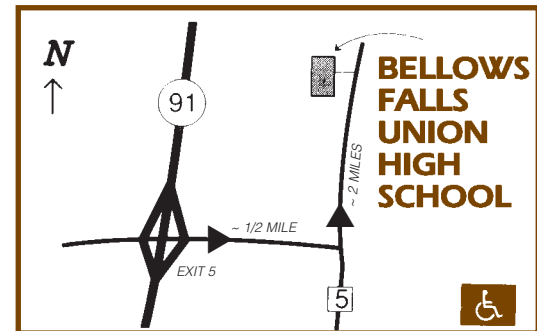
Take I-91 exit 26 to Route 2 west. Take first right (Colrain Road) to Greenfield Community College.

## Out-of-State Reception Centers:

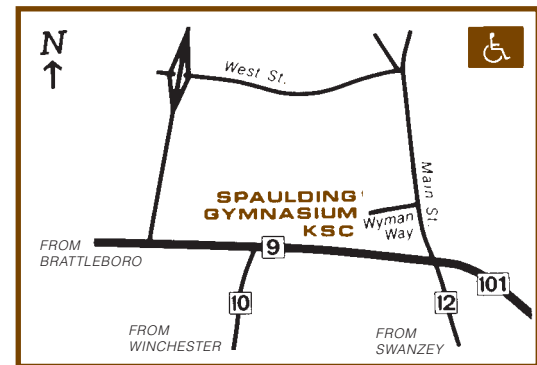
There are other reception centers that serve the Vermont Yankee 10-mile Emergency Planning Zone.

These include:

- Bellows Falls Union High School, Bellows Falls, Vermont



- Spaulding Gymnasium, Keene State College, Keene, New Hampshire





## People With Special Needs

Let your local Emergency Management Director know in **advance** if you need any special assistance during an emergency. Special help can be made available to you.

Your local Emergency Management organization is prepared to help you if you would need assistance during a public emergency. If you or someone in your household would need special help being notified of an emergency, sheltering-in-place, evacuating, or staying in a mass care shelter, please let the Emergency Management Director know immediately. Special help is available, but is best planned **before** an emergency happens. Please fill out the special needs card inside this calendar. **A new card should be sent in every year.**

If you know someone who is blind or might have difficulty reading this calendar, please read it to them.

If you are hearing-impaired and would need to be notified on a TTY (telephone device for the deaf) of a public emergency, please notify your local Emergency Management office. You may use the special needs card inside this calendar.

**ALL INFORMATION WILL BE KEPT  
STRICTLY CONFIDENTIAL.**

If you have children who might be home alone, make sure they understand the information in this calendar and know what to do in an emergency. It is especially important that they know how to tune to their local Emergency Alert System radio station.

## Important Telephone Numbers

Remember, in a public emergency, do not use your telephone except to request help if you need it. For information, listen to your local Emergency Alert System radio station. It is important to leave telephone lines open and emergency workers available for people who need immediate help.

### For Help During an Emergency

Bernardston.....	(413) 648-9757
Colrain .....	(413) 624-5528
Gill .....	(413) 863-2773
Greenfield .....	(413) 772-1516
(TTY) .....	(413) 774-3098
Leyden .....	(413) 772-2369
Northfield.....	(413) 498-2901
Warwick.....	(978) 544-3314

Massachusetts Emergency  
Management Agency

Public Information ..... 1-800-982-6846

### For Emergency Planning information in advance, contact:

Bernardston.....	(413) 648-5400
Colrain .....	(413) 624-3454
Gill .....	(413) 863-8103
Greenfield .....	(413) 772-1560
Leyden .....	(413) 774-4111
Northfield.....	(413) 498-2901
Warwick.....	(978) 544-6315

## Other Important Information

### Information for Farmers

For information for farmers and food processors, contact:

Massachusetts Department of Public Health  
90 Washington Street  
Dorchester, MA 02121  
Phone: (617) 427-2944  
Fax: (617) 427-2925  
[www.mass.gov/dph/rcp](http://www.mass.gov/dph/rcp)



### Emergency Plan Testing

To make sure that the well, it is tested regularly. This testing is called an exercise. Emergency workers and public officials simulate a serious problem and go through the emergency actions in the plan. You can read about these tests in the newspaper before they take place.



emergency plan works ularly. This testing is Emergency workers simulate a serious through the emergency You can read about these tests in the newspaper before they take place.

### Siren Testing

One of the ways you can be alerted to an emergency is by the emergency sirens sounding for a full three minutes or longer. The sirens are tested on a regular basis. So there will be no confusion as to the intent of a sounding siren, the following is a list of testing days and times for the civil defense sirens.

Brattleboro, VT	First Saturday of the month at 12 noon
Vernon, VT	First Saturday of the month at 8:00 am
Hinsdale, NH	First Tuesday of the month at 6:00 pm
Swansey, NH	First Saturday of the month at 12:30 pm
Winchester, NH	First Saturday of the month at 12:30 pm
Bernardston, MA	First Wednesday of the month at 7:00 pm
Colrain, MA	First Saturday of the month at 12 noon
Northfield, MA	First Wednesday of the month at 7:00 pm

### Accidental Siren Sounding

Occasionally, a siren sounds by accident. If you hear a siren, tune immediately to your Emergency Alert System station. If there is no message, you should report the sounding to the Massachusetts State Police - Troop B at 1-800-248-2249.





## Personal Planning Guide

Fill in these blanks now and go over this information with your family. Decide who would pick up school children at the host school and where to meet if you were apart in an emergency. Be sure children know what to do if they are alone and the sirens sound. Talk to your neighbors so you can help each other if necessary.

It is a good idea to keep some things handy in case of an emergency: portable radio, flashlight, extra batteries. Keep your car in good running order and don't let the gas tank get too low.

**This will all save time and avoid confusion in an emergency.**

My best evacuation route is: \_\_\_\_\_

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My reception center is located at: \_\_\_\_\_

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My school children will be taken to: \_\_\_\_\_

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Prescription medicines I will need: \_\_\_\_\_

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Important papers I will need: \_\_\_\_\_

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I could get an emergency bus at: \_\_\_\_\_

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My local Emergency Management Office

**non-emergency** number

during regular business hours is: \_\_\_\_\_

My local Emergency Management Office

**emergency** number is: \_\_\_\_\_

My local Fire/Police **non-emergency**

number is: \_\_\_\_\_

Other things to remember: \_\_\_\_\_

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## Facts About Radiation

Radiation is one form of energy that has existed on Earth and in the universe since the beginning of time. Radiation takes several forms, none of which can be seen, heard, tasted, smelled, or felt. Scientists know what it is, where it comes from, how to detect and measure it, and how it affects people.

There are many materials in our surroundings that are naturally radioactive and have been that way since the earth was formed. They are in the ground, in our food, in buildings and even in our own bodies. Radiation also comes from outer space. Most of the radiation we receive every day comes from these sources.

Many of us receive man-made radiation, mostly from medical sources such as X-rays or radioactive tracers. Doctors use these methods to help diagnose and treat injuries and illness. Like many useful and beneficial things, radiation in large doses can be harmful. That's why people who work with radiation, like doctors and dentists, take extra precautions such as wearing lead aprons.

Radiation exposure is measured in millirem. The federal government says the average yearly exposure we receive from natural and man-made sources is about 360 millirem. In large doses, radiation may cause observable health problems or may increase the chance of health problems later in life.

In the process of making electricity, nuclear power plants produce radioactive materials. The nuclear fuel inside the nuclear power plant is highly radioactive and that is why large amounts of concrete and steel are used in

containing the radioactivity within the reactor. Radiation guidelines for nuclear power plants have been established by the Nuclear Regulatory Commission. These guidelines are designed to protect both the public and workers from unnecessary radiation exposure during the operation of nuclear power plants.

It is impossible for a nuclear power plant to explode like a nuclear bomb. Although there could be a serious accident at a nuclear power plant which might release radioactive materials, these serious accidents are very unlikely.

If a serious accident happened, people living near the plant would be asked to reduce exposure either by sheltering-in-place or by evacuating the area until such time as the radioactive materials had dispersed.

To receive information on the nuclear plant's daily operating status, you may call 1-800-322-0242. In the event of an emergency, the daily lines would be used for public information and rumor control and for providing up-to-date reports on plant conditions.

# VERMONT YANKEE

1-800-322-0242



# Potassium Iodide (KI) and the Public

The Massachusetts Department of Public Health and the Massachusetts Emergency Management Agency want you to know about potassium iodide (KI). The Nuclear Regulatory Commission has made KI available to states for distribution within the 10-mile Emergency Planning Zones of commercial nuclear power stations.

## What is potassium iodide (KI)?

Potassium iodide is a drug that can protect the thyroid gland from radiation injury caused by radioactive iodine. The drug is approved for use by the U.S. Food and Drug Administration and is available over-the-counter.

## How does it work?

KI saturates the thyroid gland with stable (non-radioactive) iodine, to limit the amount of radioactive iodine that could be absorbed by the thyroid. During a radiological emergency, radioactive iodine could be released to the environment. Iodine concentrates in the thyroid gland. Breathing air or eating food contaminated with radioactive iodine can injure the thyroid and increase the risk of thyroid cancer.

Potassium iodide is only effective against exposure to radioactive iodine and only protects the thyroid gland. KI does not protect against other types of radioactivity that might be released during a nuclear emergency. Evacuation and sheltering-in-place are the primary means of protection. The use of KI is secondary to these protective measures.

## When should I take KI?

KI should be taken shortly before or shortly after exposure to radioactive iodine to be most effective. Even if taken three to four hours after exposure, it would still reduce the amount of radioactive iodine absorbed by the thyroid and have a substantial effect. The protective effects of KI last approximately 24 hours. Emergency broadcasts over Emergency Alert System radio stations will tell people if the Massachusetts Department of Public Health (MDPH) advises them to take KI.

**Remember, evacuation is the most effective protective action.**

## How much should I take or give to my children?

The presently available KI pills are 130-milligram scored tablets. In December 2001 the U.S. Food and Drug Administration published guidance on KI recommending the following dosages:

<b>Adults</b>	<b>130 mg</b>
<b>Children aged 3 to 18 years</b>	<b>65 mg</b>
<b>Young Children (one month to 3 years)</b>	<b>32 mg</b>
<b>Infants (birth through one month)</b>	<b>16 mg</b>

These are the minimum effective doses; the MDPH supports the use of one 130 mg. tablet for children above 3 years of age during an emergency. Young children one month through three years of age should take 32 mg., one quarter tablet, and infants between birth and one month should take 16 mg., one eighth tablet, which can be crushed and dissolved in juice or formula. This is in agreement with US FDA guidelines. If you are considering using KI in an emergency, you should discuss whether taking KI is right for you with your health care provider.

## How can I get potassium iodide?

Persons living within the 10-mile Emergency Planning Zone may obtain one free KI tablet for each member of their household by calling the Massachusetts Department of Public Health Radiation Control Program at (617) 427-2944.

Further information on KI can be found on the Massachusetts Department of Public Health Radiation Control Program website: [www.mass.gov/dph/rcp](http://www.mass.gov/dph/rcp).

For members of the EPZ population instructed to evacuate and who have not obtained KI, distribution points will be set up at pre-identified KI Dispensing Sites outside the EPZ. Here are directions to the site.

**Northampton:** Exit 21 off I-91, then Rt. 10 North to Mass Highway Dept. on your right.